

## **REMARKS**

### **I. Introduction**

In the Examiner's final Office Action, claims 1-9 were allowed and claims 11-22 were rejected. This Amendment is intended to address the Examiner's rejection of claims 11-22 presented in the final Office Action and to present new claims 23-45 for the Examiner's consideration which are believed to be patentably distinguishable over the prior art of record.

Allowed claims 1-9 are unchanged.

### **II. Amendments and Support for New Claims**

Independent claim 11 is amended by incorporating therein the limitations of dependent claim 16. Therefore, claim 16 is canceled.

Independent claim 19 is amended so as to make it dependent from allowed claim 9 and to define the composition that is fed to the gasification burner as being the liquid bituminous oil obtained from the phase separation step of the claimed process.

Regarding new independent process claim 23, support for the mixing step thereof and the limitations recited therein may be found in the specification at page 3, lines 23-25, 29-31; page 8, lines 29-31; and page 9, lines 3-4. Support for the temperature raising step and the limitations recited therein may be found in the specification at page 3, lines 25-27, 31-31; page 4, lines 32-33; and page 8, lines 31-33. Support for the phase separation step and the limitations recited therein may be found in the specification at page 3, lines 20-21; page 6, lines 13-17; and page 8, line 33-page 9, line 3.

Support for dependent claim 24 may be found in the specification at page 5, line 35-page 6, line 1; page 6, lines 10-12; page 9, lines 4-6, 33-34; and page 10, line 5.

Support for dependent claim 25 may be found in the specification at page 5, lines 12-16, page 5, lines 31-page 6, line 12, page 9, lines 4-6, 33-34; and page 10.

Support for dependent claims 26 and 40 may be found in the specification at page 6, lines 1-12.

Support for dependent claims 27, 28, 29, and 41 may be found in the specification at page 5.

Support for dependent claims 30, 31, 34, and 42 may be found in the specification at pages 4-5 and in the claims.

Support for dependent claims 32, 33, 43, and 44 may be found in the specification at page 5, line 3-page 6, line 12, and in the claims.

Support for dependent claims 36, 37, 38, and 39 may be found in the specification at page 1, lines 29-page 2, line 8; page 7, line 23-page 8, line 7; and page 9, lines 6-11.

Support for dependent claim 35 may be found in the specification at page 7, lines 9-12 and in the claims.

### **III. Rejection of Claims 11-18 over Brandl et al (U.S. 5,441,548)**

In his final Office Action, the Examiner rejected the composition by process claims 11-18 as being anticipated by or, in the alternative, obvious over Brandl et al. (U.S. 5,441,548). In view of the amendment to the independent claim 11, from which claims 12-15 and 17-18 depend, and the following comments, Applicants respectfully suggest that these claims are patentable over the Brandl et al reference.

The Examiner stated that Applicants' claimed bituminous oil product appears to be the same as the one disclosed in the Brandl et al reference. Independent claim 11 is amended by incorporating therein the limitation of dependent claim 16. This amendment requires the liquid water phase resulting from the process to have a pH that is below 7.

The specification points out the significance of this pH limitation in that it provides for the removal of water-soluble salts from the bituminous oil of the emulsion that undergoes a separation step. *See* specification at page 5, line 3 – page 6, line 12, and Examples and Table on page 10. As shown at page 10 of the specification, the bituminous oil phase recovered from the inventive process that uses sulfuric acid to control the pH of the resulting water phase provides for a bituminous oil phase product with a substantially reduced calcium and magnesium content over that of the comparative process that uses no added acid. In the specification, it is noted that controlling the pH of the water phase to a level below 7 provides for a lower content of water-soluble salts in the bituminous oil phase. *See* specification at page 5, line 3-31. The oil phase product of the inventive process has certain desirable properties making its use in certain applications a preferred product. *See* specification at page 5, line 3-12.

As noted above, the description and experimental data clearly demonstrate that the oil phase product of the inventive process is different from the prior art compositions. Therefore,

Applicants respectfully suggest that the product-by-process claims 11-15 and 17-18 are patentable over the art.

#### **IV. Rejection of Claims 19-22 over Brandl et al in view of EP 0790292**

The methods claims 19-22 were rejected as being obvious over Brandl et al (U.S. 5,441,548) in view of EP 0790292. In view of the amendment of claim 19, Applicants respectfully suggest that this obviousness rejection is obviated.

Claim 19 is amended so that it depends from allowed claim 9. Therefore, claim 19 and claims 21-22, which depend from claim 19, should be allowable.

#### **V. New Claims 23-45**

New process claims 23-44 are provided to define other embodiments of the inventive process.


New composition claim 45 recites an oil phase product of the process of certain of the newly claimed processes. It is noted that the composition-by-process of claim 45 are only with respect to the processes that require the addition of an acid to the emulsion to thereby control the pH of the water phase end-product of the process. This is to provide for the novel oil phase composition as noted hereinabove.

#### **VI. Conclusion**

In view of the above noted amendments and comments, Applicants respectfully ask for an early allowance of the claims now pending in this application.

Respectfully submitted,

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